

National Demand Optimisation Group



Primary Care Atlas of Variation for Laboratory Diagnostic Tests

User Guidance

This guidance is designed to help navigate users through the Primary Care Atlas of Variation for Laboratory Diagnostic Tests, developed by the National Demand Optimisation Group (NDOG). Some background information is provided, followed by guidance on each of the tabs and dashboard views within the Atlas. A 'Frequently Asked Questions' section has also been included along with contact details for the NDOG team.

Here is a direct link to the Atlas: [Phase5 Primary Care Dashboard | Tableau Public](#)

What is Demand Optimisation?

Demand Optimisation is defined as the process by which diagnostic test use is optimised to maximise appropriate testing, which in turn optimises clinical care and drives more efficient use of NHS resource.

What is the National Demand Optimisation Group?

Under the auspices of the Healthcare Science National Delivery Plan (NDP), the Scottish Government funded the establishment of a National Demand Optimisation Group (NDOG) to review the third deliverable of the NDP, which states:

NHS Board Healthcare Science Leads will work with stakeholders to develop local improvement plans to reduce unnecessary testing across primary and secondary care. This will free up capacity to address rising demand and deliver testing that positively affects the patient pathway, supports primary care preventative measures and reduces hospital referrals and admissions.

The NDOG is a multi-disciplinary group comprised of individuals from the main diagnostic disciplines within Laboratory Services, the Scottish Government, NHS National Services Scotland (NSS) and the National Managed Diagnostic Networks (NMDNs).

Why Does the Group Exist?

There is considerable variation in the use of laboratory diagnostic tests across primary care. Some of this variation can be attributed to clinical and demographic differences. However, some variation can be attributable to differences in practice processes and pathways or individual requester approaches or preferences.

What is the Primary Care Atlas of Variation for Laboratory Diagnostic Tests?

The Atlas of Variation contains monthly data on NHS board primary care requesting totals for a specific suite of blood science tests from cancer, cardiac, diabetes and other general pathways. The Atlas consists of three separate dashboards that allow GP practices to compare their request rates with their cluster, health board, national totals and peer group.

What else can I get out of using the Atlas of Variation?

The Atlas of Variation also contains links to educational advice, developed by the National Demand Optimisation Group's Education Short Life Working Group members. The advice, available for selected tests, is hosted on the Right Decision platform, with direct links from the Atlas. Information includes: background, when to test, when not to test, when to repeat a test and any further reading recommendations. There is also an opportunity for users to test their knowledge.

A quality improvement toolkit of resources can also be accessed via the Atlas, should any users wish to scope and implement any quality improvement projects.

Who can I contact for more information?

If you have any further questions or would like more information, you can get in touch with the NDOG team via nss.nationaldemand@nhs.scot
You can also visit the website - [National Demand Optimisation Group \(scot.nhs.uk\)](http://scot.nhs.uk)

1. The Landing Page

When you first enter the Atlas of Variation, you will be able to see a landing page, which provides a screenshot and overview of each of the three dashboard view options, as well as buttons to take you to the Education Toolkit, Definitions and Quality Improvement Toolkit.

The screenshot shows the 'Phase5 Primary Care Dashboard' by the 'IMS Requests Team'. At the top, there are navigation tabs: 'Landing Page', 'Summary Comparison (all tests)', 'Trend Across Time', 'Box and Bar', 'Definitions', and 'Diagnostic Tests'. The 'Landing Page' tab is selected. The main content area features the NHS Scotland logo and three rows of dashboard view options, each with a screenshot and a description:

- Summary Comparison (all tests):** The Summary Comparison tab shows a comparison of Test Requesting Rates from one individual General Practice. This can be against average Test Requesting Rates from several Cohorts including National, Board, Cluster and Peer groups.
- Trend Across Time:** The Trend across time tab shows the Test Requesting Rate of one individual General Practice and the average Test Requesting Rate of the National, Board, Cluster and Peer group.
- Box and Bar:** The Box and Bar tab shows a Box and Whisker chart and a Bar Chart. The Box and Whisker Chart shows a filtered Dataset of General Practices and their Test Requesting Rates.

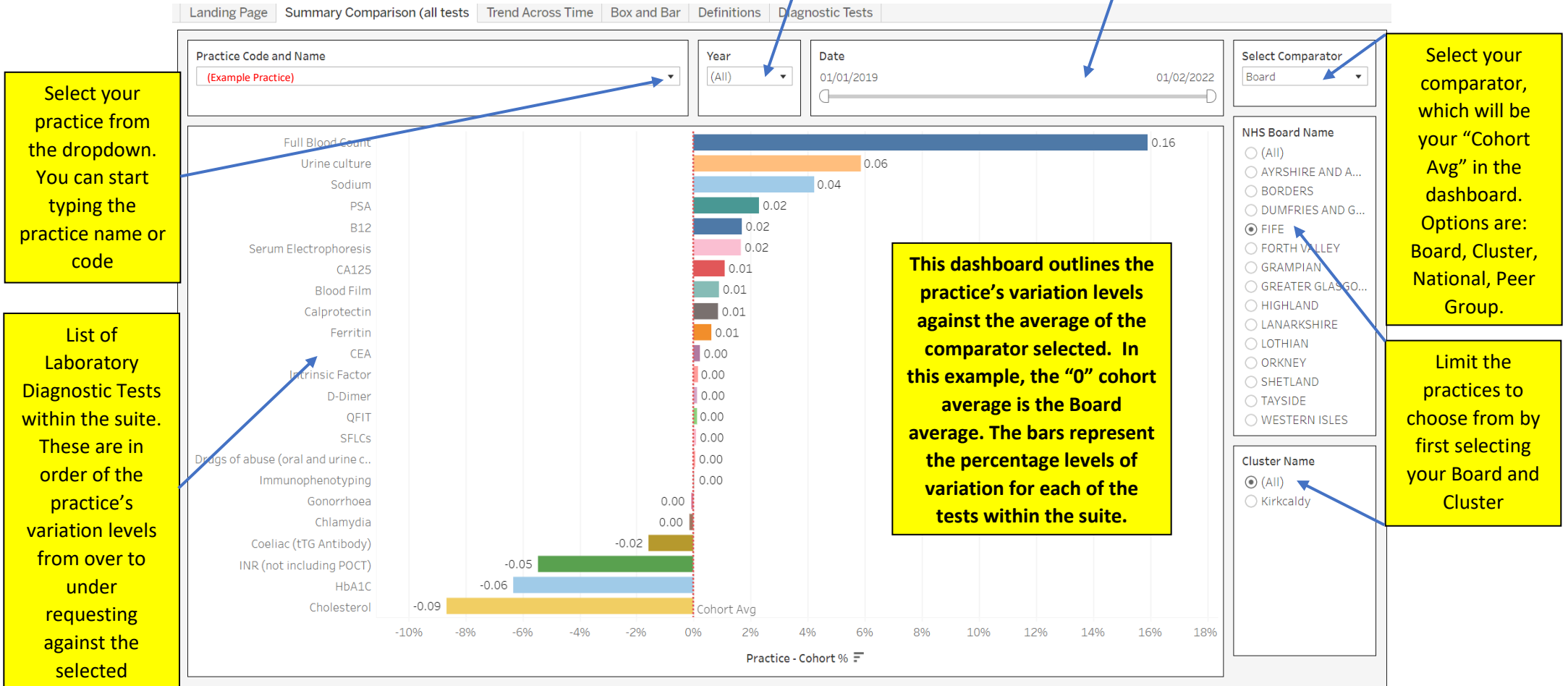
On the right side, there are three buttons: 'Education Toolkit', 'Definitions', and 'QI Toolkit'. Annotations include:

- A yellow box on the left: 'Navigational tabs for clicking between dashboard views and other pages' with an arrow pointing to the 'Landing Page' tab.
- A yellow box on the left: 'Screenshots and descriptions of each of the three dashboard views' with an arrow pointing to the 'Trend Across Time' description.
- A yellow box on the right: 'Buttons to navigate to the Education Toolkit, Definitions and QI Toolkit' with an arrow pointing to the 'Education Toolkit' button.

Figure 1 Atlas of Variation Landing Page

2. Dashboard 1 – Summary Comparison (All Tests)

Select your timeframe by using the 'year' dropdown or using the slider



Select your practice from the dropdown. You can start typing the practice name or code

List of Laboratory Diagnostic Tests within the suite. These are in order of the practice's variation levels from over to under requesting against the selected comparator

This dashboard outlines the practice's variation levels against the average of the comparator selected. In this example, the "0" cohort average is the Board average. The bars represent the percentage levels of variation for each of the tests within the suite.

Select your comparator, which will be your "Cohort Avg" in the dashboard. Options are: Board, Cluster, National, Peer Group.

Limit the practices to choose from by first selecting your Board and Cluster

Figure 2 Dashboard 1 View: Summary Comparison (All Tests)

3. Dashboard 2 – Trends Across Time

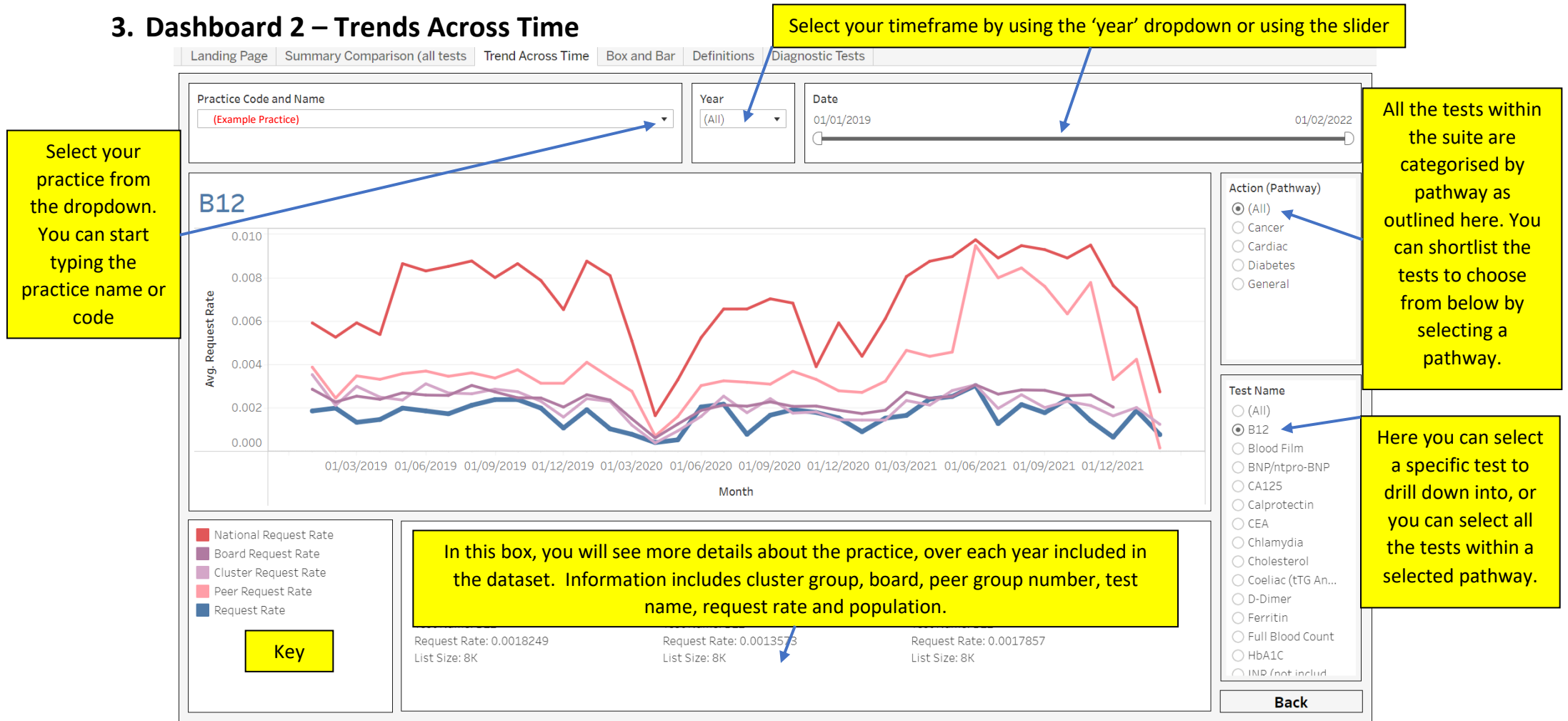
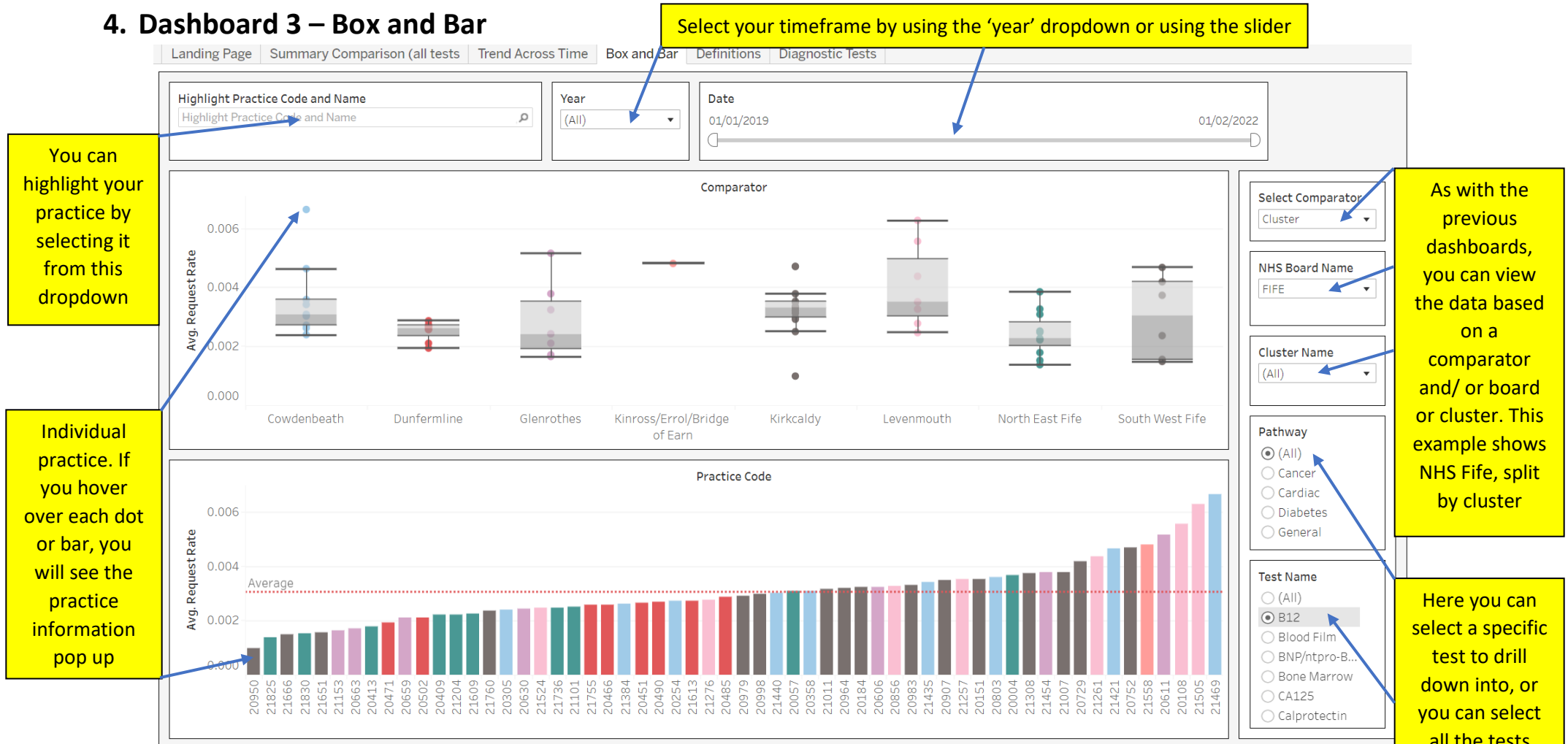


Figure 3 Dashboard 2 View: Trends across Time

This dashboard allows you to compare your practice with all four comparators at the same time, over a selected period of time.

4. Dashboard 3 – Box and Bar



Select your timeframe by using the 'year' dropdown or using the slider

You can highlight your practice by selecting it from this dropdown

Individual practice. If you hover over each dot or bar, you will see the practice information pop up

As with the previous dashboards, you can view the data based on a comparator and/ or board or cluster. This example shows NHS Fife, split by cluster

Here you can select a specific test to drill down into, or you can select all the tests within a selected pathway.

This dashboard shows two separate outputs. The top is a box graph, which has each practice represented by a dot. In the above example, these are split into clusters within the selected health board. The bar chart in the lower half of the dashboard shows all the practices within the board, side by side. This ranges in ascending order from the practice that has the highest under-request rate to the practice with the highest over-request rate, compared to the selected average, which in this example is the board.

5. Education Toolkit

Landing Page Summary Comparison (all tests) Trend Across Time Box and Bar Definitions Instructions Diagnostic Tests

Diagnostic Tests

NHS National Services Scotland

B12	Lab Test Online Page
Blood Film	Lab Test Online Page
BNP/ntpro-BNP	Lab Test Online Page
Bone Marrow	Lab Test Online Page
CA125	Lab Test Online Page Education Toolkit
Calprotectin	Lab Test Online Page
CEA	Lab Test Online Page
Chlamydia	Lab Test Online Page
Cholesterol	Lab Test Online Page
Coeliac (tTG Antibody)	Lab Test Online Page
D-Dimer	Lab Test Online Page
Drugs of abuse (oral a..	Lab Test Online Page
Ferritin	Lab Test Online Page
Full Blood Count	Lab Test Online Page
Gonorrhoea	Lab Test Online Page
HbA1C	Lab Test Online Page
Immunophenotyping	Lab Test Online Page
INR (not including	Lab Test Online Page
Intrinsic Factor	Lab Test Online Page
PSA	Lab Test Online Page
QFIT	Lab Test Online Page
Serum Electrophoresis	Lab Test Online Page
SFLCs	Lab Test Online Page
Sodium	Lab Test Online Page
Urine culture	Lab Test Online Page

CA 125 measurement is part of the ovarian cancer diagnostic pathway

Toolkit link: <https://gptoolkitapp.azurewebsites.net/diagnostic-atlas-of-variation-education-toolkit/requesting-in-primary-care/>

Keep Only Exclude

A link has been provided to associated guidance on 'Lab Tests Online', while the NDOG Education Group continues to develop bespoke advice on the education toolkit.

If you hover over the box to the right of a named test, a pop-up will appear with information about the test and a link to the education toolkit (as and when this is available.)

This page provides an overview of each test held within the Atlas suite. This is where you will also be able to link to the National Demand Optimisation Group's educational advice, which is hosted on the Right Decision platform. See the next page for more details on how the advice is presented.

Figure 5 Diagnostic tests overview and links to the associated educational advice

Service

Calculator suite App library Build RDS tools About Contact us

[Home](#) > [Diagnostic Atlas of Variation - education toolkit](#) > [CA 125 Requesting in Primary Care](#) > When not to test

When not to test

CA 125 should not be measured in any of the following situations:

- ✘ During early pregnancy
- ✘ During menstruation
- ✘ For the investigation of suspected endometriosis
- ✘ As part of a tumour marker screen
 - CA 125 within the reference range does not exclude ovarian cancer
 - CA 125 may be raised in other malignancies in addition to other non-malignant pathologies
- ✘ In a male patient


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Figure 6 Example of educational advice layout on Right Decision platform

A number of tests within the Atlas will have associated educational advice.

The advice includes:

- Background
- When to test
- When not to test
- When to repeat a test



This is followed by a quiz to test knowledge gained.

Once in the Right Decision platform, all available advice can be explored. A homepage for NDOG will also provide further information.

Downloadable PDF versions of the advice will also be available.

6. Definitions

Landing Page | Summary Comparison (all tests) | Trend Across Time | Box and Bar | Definitions | Diagnostic Tests

Definitions		
Request Rate	The Request Rate comprises of the monthly Test Request for a General Practice divided by the Population size of the General Practice.	
General Practice	Practice Details and List Size https://www.isdscotland.org/Health-Topics/General-Practice/Data/	
Clusters	The General Practice Cluster is geographic group of General Practice. More info can be found here: https://www.isdscotland.org/Health-Topics/General-Practice/GP-Clusters/	
Peer Group	The Peer Group is a way of grouping General Practice with with similar underlying populations. Further information can be found here: https://www.isdscotland.org/Health-Topics/General-Practice/GP-practice-peer-groupings/index.asp	

This page provides a glossary of definitions found within the Atlas of Variation.

Figure 7 Definitions page

7. Quality Improvement Toolkit

The National Demand Optimisation Group (NDOG) has a Short Life Working Group that has been tasked with scoping and developing quality improvement projects, through the utilisation of data held within the Atlas of Variation. This work is in the early stages of development at the moment, however a quality improvement zone will be set up on the NDOG website in the near future, which will contain examples of projects, resources and templates.

In the meantime, a link has been set up from the Atlas of Variation 'Landing Page', which will take the user to an existing Quality Improvement Zone managed by NHS Education for Scotland (NES).

8. Instructions/ User Guidance

A tab and button can be accessed from the 'Landing page', which takes you to this guidance, as well as several informative videos.

9. Frequently Asked Questions

1. **What do I do if the data looks wrong?**
 - a. Drop the NDOG team an email with as much information as possible (i.e. GP Practice name, test name etc.) – nss.nationaldemand@nhs.scot
2. **Can I share this with other NHS colleagues?**
 - a. Yes – please do
3. **How often is the Atlas of Variation updated?**
 - a. We request data on a monthly basis from NHS Boards
4. **Can I suggest changes to the Atlas of Variation?**
 - a. Yes, using the feedback form on the NDOG website, under the “Dashboards” tab, you can select from a dropdown of topics and provide feedback in a free text box. This will be picked up by the NDOG Atlas Development Short Life Working Group for discussion and follow up.
5. **Is there a change control process?**
 - a. Yes, the Demand Optimisation Core Team record all changes made to the Atlas of Variation
6. **How do I find out more about Demand Optimisation?**
 - a. Please visit our website <https://www.demandoptimisation.scot.nhs.uk/>
7. **Which internet browser should I use to access the Atlas of Variation?**
 - a. Please use Chrome, Edge or Firefox. Do not use Internet Explorer.
8. **If I have local / national guidelines relating to tests on the Atlas of Variation, can I send them in?**
 - a. Yes – please send in to the Demand Optimisation mailbox nss.nationaldemand@nhs.scot
9. **Where do I go if I have any other questions?**
 - a. Please email us using the Demand Optimisation mailbox nss.nationaldemand@nhs.scot